Preliminary Sediment & Stormwater Management Plan Review Checklist

DATE RECEIVED: _____ **PROJECT NUMBER:** _____

PROJECT NAME: _____

General Information:

1. _____ Completed application signed by the owner, review fee, one set of plans and reports, and a completed checklist must be submitted for review. Electronic plan and report program files (i.e., AutoCAD, Microstation, DURMM, HydroCAD, and/or equal/similar) shall be transmitted upon agency request.
2. _____ Provide a copy of the notice to DelDOT, a municipality, or a private entity (i.e., neighboring Homeowner's Association) for the intent to discharge or connect to their stormwater system. The notice shall indicate the proposed condition and that any comments regarding the discharge shall be returned within 30 calendar days, and if no comments are received than consent to discharge is assumed. If directly copied on the notice, indicate the date of the notice and the reviewer copied: _____.
3. _____ Hydraulic and Hydrology computations shall reflect the proposed site conditions.
4. _____ All plans should be submitted on 24" x 36" (minimum) sheets unless otherwise approved.
5. _____ When two (2) or more sheets are used to illustrate the plan view, an index sheet is required, illustrating the entire project on one (1) 24" x 36" (minimum) sheet.
6. _____ Provide a north arrow on all plans.
7. _____ Provide all plan views to a defined scale with a scale bar.
8. _____ Provide names of adjacent property owners on all plans.
9. _____ Provide existing and proposed contours (if provided) based on NAVD 88 vertical datum at one (1) foot intervals (2 foot intervals can be provided for offsite drainage information based on the latest Lidar information).
10. _____ For small projects less than ½ acre of disturbance, provide existing and proposed spot elevations based on NAVD 88 vertical datum on a fifty-foot grid system. Include high and low points.
11. _____ Locate the site in NAD83 horizontal datum.
12. _____ Provide the contact information for the person or entity responsible for preparing the plans and report, including name, company, address~~,~~ and telephone number~~ and fax number~~. Locate on both the plans and report.
13. _____ ~~Provide the seal of a Licensed Professional in the State of Delaware on all submitted plans and reports~~All detailed plans submitted for review shall be prepared, signed, dated and sealed by a Licensed Professional in the State of Delaware.
14. _____ Provide the Preliminary Sediment and Stormwater Management plans in the following order and title. The sheet list is to appear on the Coversheet, and on each plan sheet shall be respectively titled (include the title of the plan within the title block or lower right-hand corner of the sheet):
    a. _____ Coversheet
    b. _____ Schematic Pre-Construction Site Stormwater Management Plan
    c. _____ Schematic Construction Site Stormwater Management Plan
    ~~c.~~d. _____ Overall ~~Schematic Post Construction~~BMP Contributing ~~Stormwater Management~~ Drainage Area Plan
    ~~d.~~e. _____ BMP Contributing Drainage Area Plan
    ~~e.~~f. _____ Pre-Developed Subarea Limit of Disturbance Drainage Area Plan

~~f. _____ Post Limit of Disturbance Drainage Area Plan~~

Coversheet:

15. _____ Project Header ~~(to duplicate in the title block on each sheet)~~:
    a. _____ Project Name ~~(~~and Phase~~, if applicable)~~ (to duplicate in the title block on each sheet).
    b. _____ Title of Plan Set: Preliminary Sediment and Stormwater Management Plans (to duplicate in the title block on each sheet)
    c. _____ Project Location (including watershed, hundred, town, county, etc., as applicable).
    d. _____ Project tax map identification number(s).
16. _____ Legend indicating plan symbols and lines, including but not limited to, soils, drainage area information, grading and site information.
17. _____ Provide a vicinity map with a scale appropriate to project size, and indicate the site boundary within the map. The map shall be no smaller than 4"x4" in size and shall clearly indicate at least one intersecting road~~Provide a vicinity map with a scale either at 1" = ½ mile or 1" = 1 mile, depending on project size, and indicate the site boundary within the map. The map shall be no smaller than 4"x4" in size~~.
18. _____ Project Notes:
    a. Parcel Data:
        i. _____ Project tax map identification number(s~~Tax Map Number(s)~~
        ii. _____ PLUS Number (if applicable)
        iii. _____ DNREC Sediment and Stormwater Program [or relevant Delegated Agency] Number
        iv. _____ Site Address (or Nearest Intersecting Street and Distance between)
        v. _____ Latitude and Longitude State Plane coordinates, with approximate geographical location (ie, Benchmark #1, Northeast Site Corner, etc). Provide in degree decimal format.
        vi. _____ Existing Site Area
        vii. _____ Proposed Site Area
        viii. _____ Existing Wetland Area
        ix. _____ Proposed Discharge Location(s)
        x. _____ Proposed Total Limit of Disturbance per Discharge Location
    b. Contact Data:
        i. Owner's Name, Title: _____ Owner _____ Land Developer _____ Designer
        ii. Company/LLC: _____ Owner _____ Land Developer _____ Designer
        iii. Full Street Address: _____ Owner _____ Land Developer _____ Designer
        iv. Phone Number: _____ Owner _____ Land Developer _____ Designer
        ~~v. Fax Number: _____ Owner _____ Land Developer _____ Designer~~
19. _____ Include a ~~Site Designer~~Licensed Professional Certification that states "I hereby certify that this plan has been prepared under my supervision and to the best of my knowledge complies with the applicable state and local regulations and ordinances." This shall be signed in ink or an original reproducible.
20. _____ Provide a list of all sheets and their corresponding sheet number for all Preliminary Sediment and Stormwater Management Plans.

Schematic Construction Site Stormwater Management Plans:

The purpose of the Schematic Construction Site Stormwater Management Plan is to provide a preliminary design of the site's phasing in relation to the site's existing conditions and it's construction and stormwater facility locations. It will eventually be further developed into the Pre-Construction and Construction Site Stormwater Management Plan for the full plan submittal.

21. _____ Schematic Pre-Construction Site Stormwater Management Plan (if required, as determined at the SAS review meeting):
    a. _____ Include the entire site boundary in an existing conditions plan view (i.e., site boundary, existing contours, wetlands, treelines, existing structures/utilities to remain or to be removed, etc).
    b. _____ Indicate the approximate limit of disturbance per phase of construction. Provide a legend indicating the total disturbed acreage per limit of construction.
    c. _____ Indicate the location of all perimeter controls, stockpile locations, sediment trapping facilities, and other construction stormwater management controls needed for demolition and bulk grading (i.e., silt fence, stabilized construction entrances, temporary swales, sediment basins, etc).
    d. _____ Proposed contours are not required.
    e. _____ Provide a legend indicating the lines and symbols used to define the site and construction stormwater controls.
22. _____ Schematic Construction Site Stormwater Management Plan:
    a. _____ Include the entire site boundary in an existing conditions plan view (i.e., site boundary, existing contours, wetlands, treelines, existing structures to remain, etc).
    b. _____ Include a preliminary site plan view overlaid with the existing conditions. Include all lot and/or building outlines; right-of-ways and/or paved areas (whichever is less constrictive); and proposed stormwater locations including facilities, structures and pipes.
    c. _____ Indicate the approximate limit of disturbance per phase of construction. Provide a legend indicating the total disturbed acreage per limit of construction.
    d. _____ Indicate the location of all construction site stormwater controls, including perimeter controls, sediment controls, water controls, and pollution prevention controls. (i.e., silt fence, stabilized construction entrances, temporary swales, sediment basins, etc). Graphic symbols representing the practice can be utilized (ie, sediment basins do not need to be graded out).
    e. _____ Proposed contours are not required, but should be included when available. If not flow arrows showing the drainage intent with sample spot elevations can suffice.
    f. _____ Provide a legend indicating the lines and symbols used to define the site and construction stormwater controls, corresponding to the current *Delaware Erosion and Sediment Control Handbook*.

Drainage Area Plans:

The drainage area plans shall provide a graphic portrayal of the information that is contained within the DURMM worksheets. ~~Any additional hydraulic or hydrologic computations that are required to show compliance with the *Delaware Sediment and Stormwater Regulations* may require additional drainage area or watershed plans (i.e., to satisfy the Cv and Fv requirements). These plans are not prescribed below, but shall follow similar guidelines, clearly indicate the parameters used within the calculations, and be contained within the plan Sediment and Stormwater Management Plan set~~.

23. _____ Overall ~~Schematic Post Construction~~BMP Contributing Drainage Area Plan
    a. _____ Provide ~~a plan showing all sub-drainage areas for the site.~~only for sites that cannot be shown in their entirety at the maximum scale of 1"=100'.
    b. _____ Provide the type and location of Stormwater BMP(s) ~~servicing each sub-~~including the BMP draingage area boundary.
    c. _____ Provide the total area of each sub-drainage area.
    d. _____ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.

~~23.~~24. _____ BMP Contributing Drainage Area Plan
    a. _____ Provide a plan correlating to the Contributing Area RCN worksheet (post development model for the entire drainage area) for each subarea (subareas may be combined onto the same sheet, so long as they are clearly distinguishable).
    b. _____ Provide soils mapping on the plan, using the latest NRCS soil information, with a general description of each soil.
    c. _____ Indicate the LOD and the OLOD contributing areas, separated per their respective land cover and soil type classification. Provide the area of each designation.
    d. _____ Provide a legend indicating the various land~~use~~ covers per soil type classification (a hatch shall be provided for each type of land~~use~~ cover; i.e. grass-B soils, impervious-D soils).
    e. _____ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.
    ~~e.~~f. _____ Indicate the location,type and sizing information for each BMP including a representative cross section.
    ~~f.~~g. _____ Show the Tc path for the area outside the LOD as used in the OLOD worksheet.
    ~~g.~~h. _____ Show the Tc path for any other areas that require further analysis using other H&H software.

~~24.~~25. _____ Pre-Developed Subarea Limit of Disturbance ~~Drainage Area~~Data Plan
    a. _____ Provide a plan correlating to the Pre-Developed LOD information requested in the LOD worksheet (location of woods~~/ and~~ meadow and impervious conditions within the LOD per sub-area prior to disturbance) for each subarea (subareas may be combined onto the same sheet, so long as they are clearly distinguishable).
    b. _____ Provide soils mapping on the plan, using the latest NRCS soil information, with a general description of each soil.
    c. _____ Indicate the areas of woods~~/ and/or~~ meadow and impervious condition per soil type classification. Provide the area of each designation.
    d. _____ Provide a legend indicating the various land covers per soil type classification (a hatch shall be provided for each type of land cover; i.e. grass-B soils, impervious-D soils). ~~Provide a legend indicating the various landuse covers (a hatch shall be provided for each type of landuse).~~

e. _____ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.

~~25. _____ Post Limit of Disturbance Drainage Area Plan~~

~~a. _____ Provide a plan correlating to the Post LOD information requested in the LOD worksheet (location of all impervious areas). This should only be done if the LOD and OLOD cannot be shown on the Contributing Area Plan due to sizing.~~

~~b. _____ Provide soils mapping on plan, using the latest NRCS soil information, with a general description of each soil.~~

~~c. _____ Indicate the impervious area with the subarea. Provide the area of each designation.~~

~~d. _____ Provide a legend indicating the various landuse covers (a hatch shall be provided for each type of landuse).~~

~~e. _____ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.~~

26. _____ Any additional hydraulic or hydrologic computations that are required to show compliance with the *Delaware Sediment and Stormwater Regulations* may require additional drainage area or watershed plans (i.e., to satisfy the Cv and Fv requirements). These plans are not prescribed, but shall follow similar guidelines, clearly indicate the parameters used within the calculations, and be contained within the plan Sediment and Stormwater Management Plan set.

Stormwater Management Report:

27. _____ Provide information in the report in the following order:
    a. _____ Coverpage
    b. _____ Table of Contents
    c. _____ Site Narrative:
        i. _____ Introduction
        ii. _____ Existing Conditions describing the drainage patterns, landuse(s), and existing features. Include 2007 site aerial, 2007 Land Use Land Cover mapping, and photos of the site conditions and at all discharge locations.
        iii. _____ Existing Soils description per the NRCS Web Soil Survey including the hydrologic soil group; and soil testing results from on-site soil testing.
        iv. _____ Post Development Conditions, including summary of the proposed development, the proposed drainage system, indication of why the standards or performance approach was utilized, methods for RPv, Cv, and Fv compliance, requests for waivers and/or offsets, etc.
        v. _____ Construction Site Conditions, describing methods to prevent sediment and pollution discharge and illicit transportation.
        vi. _____ Conclusion

        (Note: It is not the objective to provide in depth information on practices that might change in the future due to the preliminary state of the submittal. The narrative can be elaborated for future submittals once the design becomes finalized; however, the intent of the construction and post construction practices should be described, indicating how the site will be handled with any potential concerns documented.)
    d. _____ DURMM computations and a schematic of the drainage subareas and stormwater practices
    e. _____ Additional hydraulic and hydrologic computations, such as supporting calculations for either the standards or performance based approach for the Cv and Fv events. Detailed information subject to change
    f. _____ Supplementary Construction Site computations (i.e., temporary sediment basin sizing, anti-seep collar sizing, forebay sizing, etc). *[Provide place holder for future information; does not need to be included for Preliminary submittal].*
    g. _____ Soil report(s) including boring locations and log reports.
    h. _____ Appendix containing any supplemental information (information previously included within the Stormwater Assessment Study report does not need to be duplicated).
28. _____ Provide drainage calculations for the RPv, Cv, and Fv events using the latest DURMM model and other approved H&H software as required.
29. _____ All inputted data must be supported by surveys, Lidar information, photos, aerials, maps, etc. and shall be referenced in the report and/or drainage area plans. Information previously included within the Stormwater Assessment Study submittal is acceptable and does not need to be duplicated, though shall be referenced accordingly.
30. _____ The storm duration for computational purposes shall be the 24-hour rainfall event, unless otherwise specified. For projects south of the Chesapeake and Delaware (C&D) Canal, the Delmarva Unit Hydrograph shall be used.
31. _____ The pre-development condition shall be based off of the 2007 aerial photography and the Land Use Land Cover overlay mapping provided by the State of Delaware, through ~~the Delaware DataMIL and online GIS mapping~~Stormwater Assessment Study GIS Web Application. This

may not directly correlate to current site conditions if the landuse has changed; however, the 2007 landuse shall be used regardless even if more or less conservative than the current landuse.

32. _____ The pre-development condition shall be computed assuming that all existing land uses in the site that are to be developed are in good hydrologic condition.

33. _____ Provide sizing information for the BMP(s) to be used and show they meet sizing guidelines according to section 3.06.2 Post Construction Stormwater BMP Standards and Specifications of the Technical Document~~s~~.

~~33.~~34. _____ Provide BMP capacity information for any detention practices to be used.